International Journal of Population Data Science

Advancing data collection of hospital-related harms: Validity of the new ICD-11 Quality & Safety Use Case

Eastwood, C[1], Southern, D[1], Boxill, A[1], Ghali, W[1], and Quan, H[1]

[1]University of Calgary

Introduction

The beta version of the new ICD-11 includes a 3-part model for coding hospital acquired conditions (harms) to enhance adverse event descriptions. This method includes code clusters for detail each condition/event (e.g. bleed), cause (e.g. anticoagulant drug), and mode (over-dose).

Objectives and Approach

To compare the proportion of adverse events captured in ICD-11 to clinical chart review. A large field trial of 3000 inpatient charts are being coded with ICD-11 and chart review. Hospital admissions were randomly selected between January- June 2015 for adults at 3 Calgary hospitals. Chart reviewers were nurses trained to identify 11 categories of harms. Six coding specialists were trained to code with the ICD-11 3-part model for harm description. Coding decision trees and case examples of hospital-related harms were reviewed extensively by both teams. Coding training focused on new codes, code clustering, and extension codes for cause and mode of the harm.

Results

Of the 1,009 records reviewed and coded using ICD-11 to date, chart reviewers and coding specialists accurately identified 49 (37%) of the same charts with documented hospital harms. Both correctly identified 797 (91%) of cases with no harm. Detailed analysis will follow. Study case examples will demonstrate advanced features of ICD-11 and the coding rules being collaboratively developed by our team, CIHI, and and WHO representatives.

Conclusion/Implications

Identification of hospital-related harms was consistent between coding specialists using ICD-11 principles and clinical chart reviewers. Variation existed in determining the cause and the mode of the harm. Case examples exemplify the new 3-part model for ICD-11 description of hospital-related harms.